

SUMMARY OF INTERVIEW

Applicant expresses sincere thanks to the Examiner for the courtesy extended to Mr. Ryan Benson, during the interview on March 20, 2009. Applicant has amended the claims in accordance with the proposed amendments discussed during the interview. Applicant submits that the Interview Summary issued on March 20, 2009, accurately represents the substance of the interview. Pursuant to M.P.E.P. § 713.04, the substance of the interview also is recorded hereafter.

Nature of Exhibit/Demonstration

Exemplary device brought to demonstrate the benefit of the tapered inner contact surface of the tip.

Claims

Claim 27 was discussed.

Prior Art

References of record were discussed including U.S. Pat. No. 6,830,563 to Singer.

Principal Proposed Amendments

Amendments to claim 27 were proposed.

Principal Arguments

Claims such as those set forth above in the Listing of Claims recite limitations that are not anticipated or obvious in view of the art of record.

Results

Agreement was reached that the proposed amendments presented overcome the pending rejection of claim 27, and accordingly amended claim 27 as proposed is in condition for allowance. Additionally, Applicant agreed to submit amendments to be formally considered.

REMARKS

This paper is filed in response to the Office Action, in which claims 1-42 were pending in the application and claims 18-26, 40 and 41 were withdrawn from consideration, and pursuant to the in-office interview which was conducted on March 20, 2009. In the Office Action, claims 1-17, 27-39, and 42 were rejected. By this response, claims 1, 5, 10, 27, 31, 37, 38, and 42 have been amended.

Rejections under 35 U.S.C § 103

Claims 1-17, 27-39, and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,830,563 to Singer ("Singer") in view of U.S. Pat. No. 5,984,897 to Petersen et al. ("Petersen"), U.S. Pat. No. 5,651,372 to Caillouette ("Caillouette"), U.S. Pat. No. 3,628,523 to Pirtle, Jr. ("Pirtle"), U.S. Pat. No. 3,635,218 to Ericson ("Ericson"), and U.S. Pat. No. 6,616,634 to Benz et al. ("Benz"). Applicant respectfully submits that Singer, Caillouette, Pirtle, Ericson, and Benz, individually or in combination, fail to teach every limitation of the pending claims. Furthermore, Applicant respectfully submits that combining the cited references to produce a device with the features recited in the claims, and having the advantages and improved functionality

disclosed, would not have been obvious to a person of ordinary skill without improper hindsight, because there is no teaching, suggestion, or motivation to combine provided in the cited references.

The present disclosure is directed to a flushing device which, *inter alia*, is easily operable with one hand and which provides a tip that can easily be controlled by the operator and that facilitates a quick and simple connection between the flushing device and the catheter or other apparatus to be flushed. The independent claims are amended to more clearly articulate the features that provide these improvements and advantages.

Applicant submits that the cited references do not teach all the elements of the claims as amended. More specifically, the cited references do not teach a “tip having . . . a tapered inner contact surface aligned to be contacted by a catheter to be flushed, wherein an inner diameter of the distal end is larger than a diameter of the catheter to be flushed and an inner diameter of the proximal end is smaller than the diameter of the catheter to be flushed.” The cited references also fail to teach a flushing device “wherein the distance between the . . . tip and the mechanism for expelling the flushing medium is less than 4.25 inches when the mechanism for expelling the flushing medium is in an extended position.”

The present invention contemplates the catheter to be flushed being received within a portion of the tip. Claim 1 as amended recites a “tip having a distal end, a proximal end and a tapered inner contact surface aligned to be contacted by a catheter to be flushed.” The tip is configured such that the catheter tip can contact the tapered inner contact surface. Claim 1 further recites that “an inner diameter of the distal end of

the . . . tip is larger than a diameter of the catheter to be flushed and an inner diameter of the proximal end is smaller than the diameter of the catheter to be flushed." This tapered configuration is "such that when a tip of the catheter contacts a portion of the tapered inner contact surface the catheter tip is moved relative to the inner contact surface to align the catheter tip into desired engagement with an internal diameter of the contact surface and the catheter tip is circumscribed by an outer rim of the flushing tip," as further recited in claim 1. Independent claims 10, 27, 31, 37, 38, and 42 are amended to recite similar limitations. As explained in the specification, "the tapered configuration . . . causes the catheter tip to slide toward inner bore 126 . . . provid[ing] for an advantageous and efficient connection between receiving tip 12 and the catheter tip." Specification, para. [0035].

Singer does not teach these limitations. The Office relies on Singer as teaching a flushing tip. The syringe tip of Singer is configured to generate "nonlaminar spiral flow to flush indwelling vascular access devices." Singer, Abstract. The nonlaminar spiral flow is generated by spiral elements on the inner surface of the tip. *Id.* As described with reference to FIG. 4a, the syringe tip of Singer is "inserted *into* the proximal end 32 of catheter 30. Singer, col. 3, lines 51-52. Due to the spiral elements, a catheter cannot be received into the syringe tip of Singer. Accordingly, Singer does not teach a "tip having . . . a tapered inner contact surface aligned to be contacted by a catheter to be flushed, wherein an inner diameter of the distal end of the . . . tip is larger than a diameter of the catheter to be flushed and an inner diameter of the proximal end is smaller than the diameter of the catheter to be flushed."

Petersen, Caillouette, Pirtle, Ericson, and Benz also do not teach a “tip having . . . a tapered inner contact surface aligned to be contacted by a catheter to be flushed, wherein an inner diameter of the distal end of the . . . tip is larger than a diameter of the catheter to be flushed and an inner diameter of the proximal end is smaller than the diameter of the catheter to be flushed.” Accordingly, Applicant submits that Singer, Petersen, Caillouette, Pirtle, Ericson, and Benz to not anticipate or render obvious independent claims 1, 10, 27, 31, 37, 38, and 42 as amended, nor the claims that depend therefrom.

Claim 1 of the present disclosure further recites that “the distance between the . . . tip and the mechanism for expelling the flushing medium is less than 4.25 inches when the mechanism for expelling the flushing medium is in an extended position.” Independent claims 10, 31, 37, and 42 recite similar limitations specifying that the distance between the tip (or the finger grips) and a proximal end of a mechanism for expelling the flushing medium (*e.g.*, a plunger, palm press member) is relatively short. The relatively short length allows a user, using a single hand, to maintain control of movement of the tip while using the palm of the hand to operate the flushing device.

By contrast, Singer, Petersen, Caillouette, Pirtle, Ericson, and Benz each disclose a device having a length greater than 4.25 inches. In Singer, the distance from the from the tip 17 to the proximal end of the plunger 14 is greater than 4.25 inches when the plunger is in an extended position. In Petersen, the distance from the outlet tube 3 to the bottom of the cup shaped cap 13 is greater than 4.25 inches when in an extended position. In Caillouette the distance from the forward end of the barrel to the thumb ring 16 is greater than 4.25 inches when the plunger 12 is in an extended

position. In Pirtle the distance from the tip 11 to the plunger head 17 is greater than 4.25 inches when the plunger head 17 is in an extended position. In Ericson, the distance from the tip 5 to the upper end of the bulb 12 is greater than 4.25 inches. In Benz, the distance from the nozzle 16 to the handgrip arch 19 is greater than 4.25 inches when the plunger 14 is in an extended position. Thus, the cited references fail to teach a flushing device wherein “the distance between the . . . tip and the mechanism for expelling the flushing medium is less than 4.25 inches when the mechanism for expelling the flushing medium is in an extended position.” Accordingly, Applicant submits that Singer, Petersen, Caillouette, Pirtle, Ericson, and Benz do not anticipate or render obvious independent claims 1, 10, 31, 37, 38, and 42 as amended, nor the claims that depend therefrom.

Applicant further submits that the combination of features recited in the claims has improved functionality and advantages, and combining the features in the manner recited would not have been obvious to a person of ordinary skill, except with improper hindsight. The combination of features recited in the claims as amended provides several improvements and advantages not contemplated by the cited references, including but not limited to one-handed operation with the palm or other portion of the hand, easy insertion of a catheter tip into the receiving tip of the device, and greater control over movement of the receiving tip during insertion of the catheter tip and during compression of the plunger. Although the Office has cited references with some features that are similar to some of the features of the instant application, there simply is no teaching, suggestion, or motivation in the cited references to combine the references

to produce the combinations, and the improvements and advantages thereof, of the embodiments disclosed and recited in the instant application.

For example, the Office relies upon Petersen as teaching “one or more gripping portions positioned distally from a middle portion of the receptacle.” A primary objective of Petersen is to provide a security feature, namely a plunger that “is not allowed to be pulled outwards when once pressed home in the cylinder.” Petersen, col. 1, lines 21-22. The security feature prevents reuse of the device. To accomplish this objective, “the outer end of the plunger is secured to the inner side of the bottom of a cup shaped cap which slides over the outer side of the cylinder when the plunger is pressed” and outwardly projecting hooks on the cylinder engage openings in the cup shaped cap. Petersen, col. 1, lines 28-37. Conventional positioning of finger grips at the proximal end of the cylinder is not possible because the cup shaped cap slides over the outer side of the cylinder from the proximal end of the cylinder. Accordingly, the finger grips of Petersen are provided at a different position to allow for the security feature. There is no teaching, suggestion or motivation in Petersen to provide finger grips at a distal end of the barrel with an effect of allowing the user to control movement of the receiving tip facilitating ease of insertion of the catheter tip into the receiving tip and allowing the user to control the movement of the receiving tip while compressing the plunger, as contemplated by the present disclosure. See Specification, para. [0006]. Accordingly, it would not have been obvious to a person of ordinary skill to modify Singer with Petersen. The combination would only be obvious with improper hindsight in light of the instant disclosure.

Because combination of Singer, Petersen, Caillouette, Pirtle, Ericson, and Benz would not be obvious without improper hindsight, Applicant submits that the cited references do not anticipate or render obvious the claims as amended.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that the claims define patentable subject matter and a Notice of Allowance is requested. Should questions exist after consideration of the foregoing, the Examiner is kindly requested to contact the Applicant's attorney at the telephone number given herein.

Respectfully,

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